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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/671,120

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Mike Cogdill

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7246

7590

09/21/2004

HEWLETT-PACKARD COMPANY

Intellectual Property Administration

P.O. Box 272400

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EXAMINER

JONES, STEPHEN E

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/671,120	Applicant(s) COGDILL ET AL.	
	Examiner Stephen E. Jones	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 17, 19, and 20 are objected to because of the following informalities:
Claims 17, 19, and 20 need a period at the end.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7-9, and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Chi.

Chi (Fig. 5) teaches a transmission line including: a driver (V_o); a stub matching system (i.e. a reflection dampening system) formed from a series resistance and a parallel resistance (Z_s and Y_0) coupled to ground (i.e. steady state voltage) through the parallel resistance (Claims 4-5, 7, 18); a division point (Y_d) to a plurality of output path devices (i.e. receivers) ($Y_1..Y_n$) (Claim 9); and inherently the circuit would function equivalently to the present invention, especially since it is the same as the claimed structure (Claims 1, 2, 8, 15, 17) including reducing overshoot as compared to some other circuit configuration (Claims 3, 16). Also, note that the circuit is capable of being in an integrated circuit in the same manner as the present invention, especially since it is the same as the presently claimed structure.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chi in view of Sato.

Chi teaches a transmission line and termination as described above. However, Chi does not explicitly teach the particular resistance means or that the resistance means is a trace resistance and the paths are traces in a circuit board.

Sato provides the general teaching of forming a termination resistance and transmission path as (microstrip) traces, and as would have been well-known in the art providing an additional dielectric layer on top of the traces forms a well-known stripline structure.

It would have been considered obvious to one of ordinary skill in the art to have made the Chi circuit as a trace circuit (such as taught by Sato) formed as microstrip or stripline, because it would have been considered a well-known art-recognized equivalent/alternative transmission line system means for forming a terminated circuit.

8. Claims 8-12 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buuck et al. in combination with Chi.

Buuck (Fig. 2) teaches a transmission line system including: a plurality of receiving devices; a clock signal driver (10) controlling a plurality of devices connected to the line at equal lengths from a distribution point (Claims 17, 19); reflections are attenuated (i.e. overshoot is managed in the same manner as the present invention

since reflections are canceled) (Claim 16); and the signals are received concurrently (e.g. see Col. 2, lines 22-26) (Claim 19).

However, Buuck does not teach a termination stub (Claims 15 and 18).

Chi teaches a termination stub having a series resistance and a resistance to ground (i.e. termination voltage).

It would have been considered obvious to one of ordinary skill in the art to have included a termination resistance/divider circuit such as taught by Chi at the distribution point in the Buuck circuit, because it would have provided the advantageous benefit of more precisely reducing reflections at the load of the transmission system, thereby suggesting the obviousness of such a modification.

9. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buuck et al. and Chi as applied to claims 8-12 above, and further in view of Feraud et al.

Buuck and Chi teach a terminated transmission line having driver clock signals (i.e. control signals) as described above, but do not explicitly teach the specific load devices are memory components/chips.

Feraud teaches a similar transmission line system that is controlled by clock signals in which the load devices can be memory chips (e.g. see Col. 1, lines 10-16 and lines 51-55).


Accordingly, it would have been considered obvious to one of ordinary skill in the art to have the generic load devices in the combination of Buuck and Chi to have been memory cards such as taught by Feraud, because it would have been a mere selection

of well-known specific load devices based on the desired use of the transmission line system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 571-272-1762. The examiner can normally be reached on Monday through Friday from 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Stephen Jones
Patent Examiner
Art Unit 2817

SEJ